

# Specimen Label



Dow AgroSciences



HERBICIDE

®™Trademark of The Dow Chemical Company ("Dow") or an affiliated company of Dow

2,4-D CHOLINE SALT	Group	4	HERBICIDE
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For selective control of many broadleaf weeds in crops specified in this label and orchard floors.

Do not allow contact of herbicide with foliage of desirable plants and trees because severe injury or destruction may result.

Active Ingredient(s):

2,4-Dichlorophenoxyacetic acid, choline salt .....	55.7%
Other Ingredients.....	44.3%
Total.....	100.0%

2,4-dichlorophenoxyacetic acid equivalent – 38% - 3.8 lb/gal

## Precautionary Statements

### Hazards to Humans and Domestic Animals

EPA Reg. No. 62719-726

## Keep Out of Reach of Children

## WARNING

May be fatal if swallowed. Causes substantial but temporary eye injury. Harmful if absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Do not get in eyes or on clothing. Avoid contact with skin.

### Personal Protective Equipment (PPE)

All mixers, loaders, applicators, flaggers, and handlers must wear:

- Long-sleeved shirt and long pants
- Shoes and socks, plus
- Waterproof gloves
- Protective eyewear (goggles, face shield, or safety glasses).
- Chemical-resistant apron when mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate.

See engineering controls for additional requirements

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

### Engineering Controls

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-5)], the handler PPE requirements may be reduced or modified as specified in the WPS.

Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(4-6)].

## User Safety Recommendations

Users should:

- Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. If pesticide gets on skin, wash immediately with soap and water.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

## First Aid

**If swallowed:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**If in eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**If on skin:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling poison control center or doctor, or going for treatment. You may also contact 1-800-992-5994, for emergency medical treatment information.

## Environmental Hazards

This product is toxic to fish and aquatic invertebrates. For terrestrial uses: Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift or runoff may adversely affect aquatic invertebrates and non-target plants. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Application around a cistern or well may result in contamination of drinking water or groundwater.

**Aquatic Weed Control:** Fish breathe dissolved oxygen in the water and decaying weeds also use oxygen. When treating continuous, dense weed masses, it may be appropriate to treat only part of the infestation at a time. For example, apply the product in lanes separated by untreated strips that can be treated after vegetation in treated lanes has disintegrated. During the growing season, weeds decompose in a 2 to 3 week period following treatment. Begin treatment along the shore and proceed outwards in bands to allow fish to move into untreated areas. Waters having limited and less dense weed infestations may not require partial treatments.

## Physical and Chemical Hazards

Spray solutions of this product must be mixed, stored and applied using only stainless steel, aluminum, fiberglass, plastic or plastic lined containers.

**Do not mix, store or apply this product or spray solutions of this product in galvanized steel or unlined steel containers or spray tanks.**

## Directions for Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Read all Directions for Use carefully before applying.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

## Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

### Agricultural Use Requirements (Cont.)

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks
- Protective eyewear (goggles, face shield, or safety glasses)

### Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for Agricultural Pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

**Entry Restrictions for Non-WPS Uses:** Do not enter or allow people (or pets) to enter the treated area until sprays have dried.

### Storage and Disposal

Do not contaminate water, food, feed or seed by storage or disposal.

**Pesticide Storage:** Store in a cool, dry place. Store in original container. In case of leak or spill, contain material and dispose as waste.

**Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

#### Nonrefillable containers 5 gallons or less:

**Container Handling:** Nonrefillable container. Do not reuse or refill this container.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

#### Refillable containers larger than 5 gallons:

**Container Handling:** Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water and, if possible, spray all sides while adding water. If practical, agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

#### Nonrefillable containers 5 gallons or larger:

**Container Handling:** Nonrefillable container. Do not reuse or refill this container.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

### Product Information

Embed™ Extra herbicide is intended for selective control of many broadleaf weeds in asparagus; blueberries, high bush; cranberries; sugarcane; orchard floors (pome fruit, including apples and pears, stone fruit, and nut orchards), and strawberries (established planting only).

Apply Embed Extra as a water or oil-water spray during warm weather when target weeds or woody plants are actively growing. Application under drought conditions will often give poor results. Use low spray pressure to minimize drift. Generally, the lower dosages specified on this label will be satisfactory for young, succulent growth of susceptible weed species. For less susceptible species and under conditions where control is more difficult, use higher specified rates. Deep-rooted perennial weeds such as Canada thistle and field bindweed and many woody plants usually require repeated applications for satisfactory control. Consult your State Agricultural Experiment stations or Extension Service Weed Specialists for recommendations from this label that best fit local conditions.

When this product is applied as directed and under the circumstances described, it controls annual and perennial broadleaf weeds listed in this label.

**Time to Symptoms on Susceptible Plants:** Initial symptoms include drooping leaves and epinasty, which typically occurs within 24 hours of foliar treatment. This is followed by chlorosis, necrosis, further leaf/stem malformation and, growth inhibition. Complete death and desiccation of susceptible plants occurs within 3-5 weeks.

**Stage of Broadleaf Weeds:** Annual weeds are easiest to control when they are small. Best control of most perennial weeds is obtained when treatment is made at late growth stages approaching maturity. Refer to the annual and perennial rate tables for specific weeds. When treating weeds with disease or insect damage, weeds heavily covered with dust, or weeds under poor growing conditions, reduced weed control may result.

**Rainfastness:** Heavy rainfall soon after application may wash off this product from the foliage.

**Spray Coverage:** For best results, spray coverage should be uniform and complete. Do not spray weed foliage to the point of runoff.

**Mode of Action:** 2,4-D, the active ingredient in this product, mimics the naturally occurring plant auxins and overloads the plant's auxin balance affecting vital processes, such as cell division and elongation, resulting in abnormal growth and plant death.

**Limited Soil Activity:** Though some suppression of annual weeds emerging soon after application may occur when this product is applied at higher rates within the rate range, optimum control is achieved when the majority of weeds are emerged at the time of application. Unemerged plants arising from unattached underground rhizomes or rootstocks of perennials will not be affected by the herbicide and will continue to grow.

**Biological Degradation:** Degradation of this product is primarily a biological process carried out by soil microbes.

### Herbicide Resistance Management

2,4-D, the active ingredient in this product, is a Group 4 herbicide (synthetic auxin). Weed populations may develop biotypes that are resistant to different herbicides with the same mode of action. If herbicides with the same mode of action are used repeatedly in the same field, resistant biotypes may eventually develop, produce viable seed, dominate the weed population and may not be controlled by this product. Other resistance mechanisms, such as biotypes with enhanced herbicide metabolism, may also develop, exist in a field and may cause reduced weed control. Some naturally occurring weed biotypes that are tolerant (resistant) to 2,4-D may exist due to genetic variability in a weed population. Where resistant biotypes exist, the repeated use of herbicides with the same mode of action can lead to the selection for resistant weeds. Certain agronomic practices reduce the likelihood that resistant weed populations will develop and can be utilized to manage weed resistance once it occurs.

Suspected herbicide-resistant weeds may be identified by these indicators:

- Failure to control a weeds species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
- A spreading patch of non-controlled plants of a particular weed species; and
- Surviving plants mixed with controlled individuals of the same species.

This product should be used as part of an Integrated Pest Management (IPM) program that may include biological, cultural, and chemical practices aimed at preventing economic pest damage. Application of this product should be based on appropriate IPM and resistance management strategies and practices that delay or reduce the development of herbicide-resistant weed biotypes. Such practices include, but are not

limited to, field scouting, use of weed free crop seed, cultural practices including burndown herbicides, crop rotation and cultivation, proper water management, correct weed pest identification, following rotational practices outlined on pesticide labels, and treating with the correct product rates when target weed populations are at the correct stage and economic thresholds for control.

To aid in the prevention of developing 2,4-D resistant weeds, Dow AgroSciences recommends the following practices:

#### Herbicide Selection:

- Rotate the use of 2,4-D with non-auxin (non-Group 4) herbicides.
- Utilize a broad spectrum soil-applied herbicide as a foundation treatment.
- Utilize tank mixes or sequential applications of herbicides with alternative modes of action.
- Avoid using more than two applications of a Group 4 herbicide, such as 2,4-D, within a single growing season unless mixed with another mode of action herbicide with overlapping spectrum.
- Apply full rates of 2,4-D at the specified time (correct weed size) to minimize escapes of tolerant weeds.
- Fields should be scouted prior to application to identify the weed species present and their growth stage to determine if the intended application will be effective.

#### Crop Selection and Cultural Practices:

- Incorporate additional weed control practices whenever possible, such as mechanical cultivation, delayed planting, crop rotation, and weed-free crop seeds, as part of an integrated weed control program.
- Do not allow weed escapes to produce seeds, roots or tubers.
- Thoroughly clean plant residues from equipment before leaving fields suspected to contain resistant weeds.
- Scout fields after application to detect weed escapes or shifts in weed species.
- If resistance is suspected, treat weed escapes with an alternate mode of action or cultivation.
- Report any incidence of repeated non-performance of this product against a particular weed species to the local retailer, county extension agent, or Dow AgroSciences representative.

Because the presence of herbicide resistance in weed populations is difficult to detect prior to use to the extent consistent with applicable law, Dow AgroSciences accepts no liability for any losses that may result from the failure of this product to control weeds resistant to this mode of action. Report incidents of non-performance to the local retailer, county extension agent, or Dow AgroSciences representative.

### Spray Drift Management

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, and relative humidity) and method of application (e.g., ground, aerial, airblast) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

#### Droplet Size

When applying sprays that contain 2,4-D as the sole active ingredient, or when applying sprays that contain 2,4-D mixed with other active ingredients that require a coarse or coarser spray, apply only as a coarse or coarser spray (ASABE S-572 standard) or a volume mean diameter of 385 microns or greater for spinning atomizer nozzles.

When applying sprays that contain 2,4-D mixed with other active ingredients that require a medium or finer spray, apply only as a medium or coarser spray (ASABE Standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

#### Wind Speed

Do not apply at wind speeds greater than 15 mph. Only apply this product if the wind direction favors on-target deposition and there are not sensitive areas (including residential areas, bodies of water, known habitat for non-target species, non-target crops) within 250 feet downwind. If applying a medium droplet spray, leave one swath unsprayed at the downwind edge of the treated field.

#### Temperature Inversions

Applications should not occur during a local, low level temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of the smoke from a ground source generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

### State and Local Requirements

Applicators must follow all state and local pesticide drift requirements regarding application of 2,4-D herbicides. Where states have more stringent regulations, they must be observed.

### Susceptible Plants

Do not apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption. Do not allow contact of herbicide with foliage of desirable plants; including cotton and trees, because severe injury or destruction may result. Small amounts of spray drift that may not be visible may injure susceptible broadleaf plants.

**Before making an application, please refer to your state's sensitive crop registry (if available) to identify any commercial specialty or certified organic crops that may be located nearby.**

**At the time of application, the wind cannot be blowing toward adjacent commercially grown tomatoes and other fruiting vegetables (EPA crop group 8), cucurbits (EPA crop group 9), grapes and cotton.**

### Application Equipment and Application Methods

**Chemigation:** Do not apply this product through any type of irrigation system.

Apply Embed Extra with the following application equipment: Apply spray solutions in properly maintained and calibrated equipment capable of delivering desired volumes.

#### Ground Broadcast Spray

Boom, pull-type sprayer, floaters, pick-up sprayers, spray coupes and other ground broadcast equipment. Use the minimum boom height based upon the nozzle manufacturer's specifications. Spray drift potential is increased as boom height increases. Spray drift can be minimized if nozzle height is not greater than maximum height recommended by nozzle manufacturer for the nozzle selected.

Use the specified rates of this product as a broadcast spray unless otherwise specified. As the density of weeds increases, increases spray volume within the specified range to ensure complete coverage. Check for even distribution of spray droplets.

#### Aerial Application

The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.

Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety. This requirement does not apply to forestry or rights-of-way applications.

When applications are made with a crosswind, the swath will be displaced downwind. The applicator must compensate for this by adjusting the path of the aircraft upwind.

### Mixing Directions

#### Embed Extra – Alone

Mix Embed Extra only with water unless otherwise directed on this label. Add about half of the water to the mixing tank, then add Embed Extra with agitation, and finally the rest of the water with continuing agitation. **Note:** Adding oil, wetting agent, or other surfactant to the spray mixture may increase effectiveness on weeds, but also may reduce selectivity to crops resulting in crop damage.

#### Embed Extra - Tank Mix

When tank mixing, read and follow the label of each tank mix product used for precautionary statements, directions for use, weeds controlled, and geographic and other restrictions. Use in accordance with the most restrictive of label limitations and precautions. Do not exceed any active ingredient's maximum use rates when tank mixing. Do not tank mix this product with any product containing a label prohibition against tank mixing with 2,4-D. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

**Tank Mix Compatibility Testing:** A jar test is recommended prior to tank mixing to ensure compatibility of this product and other pesticides. Use a clear glass quart jar with lid and mix the tank mix ingredients in their relative proportions. Invert the jar containing the mixture several times and observe the mixture for approximately ½ hour. If the mixture balls-up, forms flakes, sludges, jels, oily films or layers, or other precipitates, it is not compatible and the tank mix combination should not be used.

**Mixing with Liquid Nitrogen Fertilizer:** This product may be combined with liquid nitrogen fertilizer suitable for foliar application to accomplish broadleaf weed control and fertilization of corn, small grains or pastures in a single operation. Use Embed Extra in accordance with directions for

these crops provided in this label. Use liquid fertilizer at rates specified by the supplier or Extension Service Specialist. Test for mixing compatibility as described above before mixing in a spray tank. A compatibility aid such as Unite or Complex may be needed in some situations. Compatibility is best with liquid fertilizer solutions containing only nitrogen. Mixing with N-P-K solutions may not be satisfactory, even with the addition of a compatibility aid. Pre-mixing 1 part Embed Extra with up to 4 parts water may help in situations when mixing difficulty occurs.

Fill the tank about half full with the liquid fertilizer, then add the required amount of Embed Extra with agitation. Maintain agitation and complete filling the tank with liquid fertilizer. Apply immediately and continue agitation in spray tank during application. **Do not store the spray mixture.** Application during very cold weather (near freezing) is not advisable.

### Sprayer Clean-Out

To avoid injury to desirable plants, thoroughly clean equipment used to apply this product before re-use or using it to apply other chemicals.

1. Completely drain the spray system, including pump, lines and spray boom, for at least 5 minutes.
2. Fill the spray tank with clean water to at least 10% of the total tank volume and circulate the solution through the entire system so that all internal surfaces are contacted for at least 15 minutes to complete the first rinse of the application equipment. Spray the solution out of the spray tank through the boom.
3. Completely drain the spray system, including lines and spray boom, for at least 5 minutes; remove and clean filters and strainers.
4. During the second rinse, fill the container with clean water to at least 10% of the total tank volume. The addition of tank cleaning agents may be used at the manufacturer's specified rates. Circulate the solution through the entire system for at least 15 to 20 minutes. Let the solution stand for several hours, preferably overnight. Spray the solution out of the spray tank through the boom.
5. Completely drain the spray system, including lines and spray boom, for at least 5 minutes.
6. Fill the container with clean water to at least 10% of the total tank volume and circulate the solution through the entire system so that all internal surfaces are contacted for at least 15 minutes to complete the third rinse of the application equipment. Spray the solution out of the spray tank through the boom.
7. Completely drain the spray system, remove nozzle tips and strainers and clean them separately.

### Application Directions

Apply with calibrated air or ground equipment using sufficient spray volume to provide adequate coverage of target weeds or as otherwise directed in Use Directions. For broadcast application, use a spray volume of 3 gallons or more per acre by air and 10 gallons or more per acre for ground equipment. Where states have regulations which specify minimum spray volumes, they must be observed. In general, increase spray volume as crop canopy, height and weed density increase in order to obtain adequate spray coverage. **Do not apply less than 3 gallons total spray volume per acre.**

### Application Rate

The lower dosages given will be satisfactory for young, succulent growth of sensitive weed species. For less sensitive species and under conditions where control is more difficult, the higher dosages will be needed.

### Application Timing

Apply Embed Extra during warm weather when weeds are young and actively growing.

### Spot Treatments

To prevent misapplication, apply spot treatments with a calibrated boom or with hand sprayers using a fixed spray volume per 1000 sq ft as indicated below.

**Hand-Held Sprayers:** Hand-held sprayers may be used for spot applications of Embed Extra. Take care to apply the spray uniformly and at a rate equivalent to a broadcast application. Application rates in the table are based upon the application rate for an area of 1000 sq ft. Mix the amount of Embed Extra (fl oz or mL) corresponding to the desired broadcast rate in 1 to 3 gallons of spray. To calculate the amount of Embed Extra required for larger areas, multiply the table value (fl oz or mL) by the thousands of sq ft to be treated. An area of 1000 sq ft is approximately 10.5 X 10.5 yards (strides) in size.

### Rate Conversion Table for Spot Treatment:

Label Broadcast Rate (pint/acre)							
1/2	2/3	3/4	1	2	3	4	8
Equivalent Amount of Embed Extra per 1000 sq ft							
1/5 fl oz (5.5 mL)	1/4 fl oz (7.3 mL)	1/3 fl oz (8.3 mL)	3/8 fl oz (11 mL)	3/4 fl oz (22 mL)	1 fl oz (33 mL)	1 1/2 fl oz (44 mL)	3 fl oz (88 mL)

### Band Application

Embed Extra may be applied as a band treatment. Use the formulas below to determine the appropriate rate and volume per treated acre.

Band width in inches -----	X	Broadcast rate = per acre	Band rate per treated acre
Row width in inches			
Band width in inches -----	X	Broadcast volume per acre	Band volume per treated acre
Row width in inches			

### Weeds Controlled

Hard to control weeds, such as Palmer amaranth, may require a total program approach including soil applied residual herbicide(s) followed by a single or sequential post herbicide application.

Perennial weeds may require higher rates for best control. Below-ground portions of perennial weeds may not be completely controlled with single applications and follow-up applications may be required if regrowth occurs.

### Annual or Biennial Weeds

beggarticks <sup>1</sup>	mousetail
bittercress, smallflowered	mustards (except blue mustard)
bitterweed	parsnip, wild
broomweed, common <sup>1</sup>	pennycress, field
burdock, common	pepperweed <sup>1</sup>
buttercup, smallflowered <sup>1</sup>	pigweeds ( <i>Amaranthus</i> spp.) <sup>1</sup>
carpetweed	poorjoe
cinquefoil, common	primrose, common
cinquefoil, rough	purslane, common
cocklebur, common	pusley, Florida
coffeeweed	radish, wild
copperleaf, Virginia	ragweed, common
croton, Texas	ragweed, giant
croton, woolly	rape, wild
flixweed	rocket, yellow
galinsoga	salsify, common <sup>1</sup>
geranium, Carolina	salsify, western <sup>1</sup>
hemp, wild	shepherdspurse
horseweed (marestail)	sicklepod
jewelweed	smartweed (annual species) <sup>1</sup>
jimsonweed	sneezeweed, bitter
knotweed <sup>1</sup>	sowthistle, annual
kochia	sowthistle, spiny
lambquarters, common	spanishneedles
lettuce, prickly <sup>1</sup>	sunflower
lettuce, wild	sweetclover
lupines	tansymustard
mallow, little <sup>1</sup>	thistle, bull
mallow, Venice <sup>1</sup>	thistle, musk <sup>1</sup>
marshelder	thistle, Russian (tumbleweed) <sup>1</sup>
morningglory, annual	velvetleaf
morningglory, ivy	vetches
morningglory, woolly	

### Perennial Weeds

alfalfa <sup>1</sup>	eveningprimrose, cutleaf
artichoke, Jerusalem <sup>1</sup>	garlic, wild <sup>1</sup>
aster, many-flower <sup>1</sup>	goldenrod
Austrian fieldcress <sup>1</sup>	hawkweed, orange <sup>1</sup>
bindweed (hedge, field and European) <sup>1</sup>	healal
blue lettuce	ironweed, western
bluweed, Texas	ivy, ground <sup>1</sup>
broomweed	Jerusalem artichoke
bullnettle <sup>1</sup>	loco, bigbend
carrot, wild <sup>1</sup>	nettles (including stinging) <sup>1</sup>
catnip	onion, wild <sup>1</sup>
chicory	pennywort
clover, red <sup>1</sup>	plantains
coffeeweed	ragwort, tansy <sup>1</sup>
cress, hoary <sup>1</sup>	sowthistle, perennial
dandelion <sup>1</sup>	thistle, Canada <sup>1</sup>
docks <sup>1</sup>	vervains <sup>1</sup>
dogbanes <sup>1</sup>	waterplantain
	wormwood

<sup>1</sup>May require application to small weeds, repeat applications, and/or use of higher specified rates of this product. Control at rates of 1 pint or less per acre may only be partial.

## Use Directions

Unless otherwise specified, applications may be made to control any weeds listed in the annual and perennial tables.

**Agricultural Use Requirements for Crops:** For the following crop uses, follow PPE and re-entry instructions in the Agricultural Use Requirements section of this label.

### Apples, Pears, Stone Fruit and Nut Orchards (Except Filberts) (Orchard Floor)

APPLICATION TIMING	AMOUNT OF EMBED EXTRA PER ACRE	DIRECTIONS
<b>Postemergence</b> Annual and biennial broadleaf weeds Perennial broadleaf weeds	1 to 2 pints Up to 4 pints	For application to orchard floors, use coarse, low-pressure sprays and sufficient water for thorough coverage of weeds. Apply to annual weeds when small and actively growing. Apply to perennial weeds from bud to bloom stage. Newly established trees or young orchards are more susceptible to 2,4-D injury. Apply only to orchards that have been established for at least one year and are in vigorous growth condition

#### Restrictions for Use in Pome Fruits

- Preharvest Intervals (PHI):
  - Apples and Pear: Do not harvest fruit within 14 days of application.
  - Stone Fruit: Do not harvest within 40 days of application
  - Nut Orchard and Pistachio: Do not harvest within 60 days of application.
- Do not apply to bare ground as injury may result.
- Do not apply immediately before irrigation. Withhold irrigation for two days before and three days after application.
- Do not allow spray drift to contact foliage, fruit, stems, trunks or trees or exposed roots.
- Do not apply to newly established or young orchards. Trees must be at least 1 year old and in vigorous condition.
- Do not apply when orchards are blooming.
- Do not cut orchard floor forage for hay within 7 days of application.
- Allow at least 75 days between applications.
- Do not make more than 2 applications per year.
- Max annual rate: 4.0 lbs ae per acre per year.
- Do not graze or feed cover crops from treated orchards.

### Asparagus

CROP / APPLICATION TIMING	AMOUNT OF EMBED EXTRA PER ACRE	DIRECTIONS
<b>Annual, biennial and perennial broadleaf weeds</b>	3 to 4 pints	Apply on actively growing weeds. <b>Ground Application:</b> Apply in 50 to 60 gallons of water per acre. <b>Aerial Application:</b> Apply in 12 gallons of water per acre. Post-harvest spraying should be only by ground application using drop nozzles to avoid spraying the fern. If asparagus spears are present, treat immediately after cutting. Spears contacted by the spray may be malformed and off-flavored. If spears are malformed by spray, cut immediately and discard.

#### Restrictions for Use in Asparagus

- Limited to two applications per crop cycle.
- Maximum of 4 pints (2.0 lb ae) per acre per application.
- Minimum of 30 days between applications.
- Preharvest Interval (PHI): Do not harvest within 3 days of application.

### Blueberries, High Bush

CROP STAGE	MAXIMUM APPLICATION RATE / ACRE	DIRECTIONS / TIMING
<b>Postemergence</b>	3.0 pints	Make directed or shielded application in the spring.
<b>Postharvest</b>	3.0 pints	Make directed application to row middles in summer or fall after harvest.

#### Restrictions for Use in Blueberries

- Preharvest Interval (PHI): Do not harvest within 30 days of application.
- Max annual rate: 6.0 pints (2.8 lbs ae) per acre per year.
- Limited to one application per year for each of the crop stages.
- Do not allow herbicide contact with blueberry plant foliage.

### Cranberries

CROP STAGE	MAXIMUM APPLICATION RATE / ACRE	DIRECTIONS / TIMING
<b>Postemergence</b>	2.5 pints	Make directed wipe or spot applications when weed tops are above crop.

#### Restrictions for Use in Cranberries

- Preharvest Interval (PHI): Do not harvest within 30 days of application.
- Postemergence: Do not exceed two postemergence applications per year.
- Do not exceed 2.5 pints (1.2 lb ae) per acre per application.
- Max annual rate: 5 pints (2.4 lbs ae) per acre per year in the growing season.

## Fallowland and Crop Stubble

(Fallow land is idle land, postharvest to crops, or between crops)

APPLICATION TIMING	AMOUNT OF EMBED EXTRA PER ACRE	DIRECTIONS
Annual broadleaf weeds	1 to 2 pints	Use a lower rate in the rate range when weeds are small (2 to 3 inches tall) and actively growing. Use a higher in the rate range when weeds are larger and under less favorable growth conditions
Biennial broadleaf weeds	2 to 4 pints	Apply when musk thistles or other biennial species are in the seedling to rosette stage and before development of flower stalks. The lower rate in the rate range can be used in the spring during the rosette stage. Use the highest rate in the rate range in the fall or after flower stalks have developed.
Perennial broadleaf weeds	2 to 4 pints	Apply when perennial weeds are in bud to early bloom stage or while in good vegetative growth.
Wild garlic and onion in crop stubble	4 pints	Apply to new regrowth of wild garlic or onion that occurs in the fall after harvest of small grains, corn or grain sorghum.

### Precaution:

- For best weed control results, do not cultivate for at least two weeks after application or until top growth is dead.

### Restrictions for Use in Fallowland and Crop Stubble

- PHI: Do not cut forage for hay within 7 days of application.
- Maximum single application rate is 4.0 pints of Embed Extra (2 lb ae) per acre.
- Do not apply more than two times per year.
- Maximum of 8 pints of Embed Extra (4 lbs ae) per acre per year.
- Do not apply within 30 days of previous application.
- Plant only labeled crops within 29 days following application.

### Planting in Treated Areas

**Labeled Crops:** Within 29 days following an application of this product, plant only those crops named as use sites on this or other registered 2,4-D labels. Follow more specific limitations, if any, provided in the directions for individual crops. Labeled crops may be at risk for crop injury or loss when planted soon after application, especially in the first 14 days. Degradation factors described below should be considered in weighing this risk.

**Other Crops:** All other crops may be planted 30 or more days following an application without concern for illegal residues in the planted crop. However, under certain conditions, there may be a risk of injury to susceptible crops. Degradation factors described below should be considered in weighing this risk. Under normal conditions, any crop may be planted without risk of injury if at least 90 days of soil temperatures above freezing have elapsed since application.

**Degradation Factors:** When planting into treated areas, the risk of crop injury is less if lower rates of product were applied and conditions following application have included warm, moist soil conditions that favor rapid degradation of 2,4-D. Risk is greater if higher rates of product were applied and soil temperatures have been cold and/or soils have been excessively wet or dry in the days following application.

## Strawberries (Established Planting Only)

DO NOT USE IN CALIFORNIA OR FLORIDA

CROP / APPLICATION TIMING	AMOUNT OF EMBED EXTRA PER ACRE	DIRECTIONS
Postemergence	2 - 3 pints	Apply to established plantings when strawberries have gone into dormancy or soon after the last picking. Apply in 25 - 50 gallons of water per acre

### RESTRICTIONS FOR USE in STRAWBERRIES

- Apply only in established strawberry plantings.
- Apply in early spring when strawberries are dormant or immediately after the last picking.
- Limited to one application per year.
- Maximum use rate of 3 pints (1.5 lb ae) per acre per application.

## Sugarcane

Do Not Use in California

APPLICATION TIMING	AMOUNT OF EMBED EXTRA PER ACRE	DIRECTIONS
Preemergence	4 pints	Apply before canes appear for control of emerged broadleaf weeds.
Postemergence	1 1/2 to 4 pints	Apply after cane emerges and through lay-by.

### Restrictions for Use in Sugarcane

- Max annual rate: Apply no more than 8.0 pints (4.0 lbs ae) per acre per year.
- Do not harvest cane prior to crop maturity.
- Limited to one application per year for each of the crop stages.

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### **Terms and Conditions of Use**

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If terms of the following Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. Otherwise, to the extent permitted by law, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitations of Remedies.

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### **Warranty Disclaimer**

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Dow AgroSciences warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. To the extent permitted by law, Dow AgroSciences MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

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### **Inherent Risks of Use**

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It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Dow AgroSciences or the seller. To the extent permitted by law, all such risks shall be assumed by buyer.

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### **Limitation of Remedies**

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To the extent permitted by law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Dow AgroSciences' election, one of the following:

1. Refund of purchase price paid by buyer or user for product bought, or
2. Replacement of amount of product used.

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